

Alignment of human Slit-1 (SEQ ID NO:02), human Slit-2 (SEQ ID NOS:03-06), Drosophila Slit-1 (SEQ ID NO:07), C. elegans Slit-1 (SEQ ID NOS:08-09), mouse Slit-2 (SEQ ID NOS:10-11) and mouse Slit-1 (SEQ ID NOS:12-14).

1 M A A P S R T T L M P P P F R L Q L R L - L I L P I L L L L R H D A V H A E P Y D-Slit
1 M R G V G W Q - - - - - M L S L S L G L V L A I L - - - - - H-Slit1

40 S G G F G S S A V S S G G L G S V G I H I P G G G V G V I T E A R C P R V C S C D-Slit
21 - - - - - - - - - - - - - - - N K V A P Q A C P A Q C S C H-Slit1

80 T G L N V D C S H R G L T S V P R K I S A D V E R L E L Q G N N L T V I Y E T D D-Slit
35 S G S T V D C H G L A L R S V P R N I P R N T E R L D L N G N N I T R I T K T D H-Slit1

120 F Q R L T K L R M L Q L T D N Q I H T I E R N S F Q D L V S L E R L - - - - - D-Slit
75 F A G L R H L R V L Q L M E N K I S T I E R G A F Q D L K E L E R L R L N R N H H-Slit1
1 - - - - - H L R V L Q L M E N R I S T I E R G A F Q D L K E L E R L R L N R N N M-Slit1

154 - - - - - - - - - - - - - - - D I S N N V I T T V G R R V F K G A Q S L R D-Slit
115 L Q L F P E L L F L G T A K L Y R L D L S E N Q I Q A I P R K A F R G A V D I K H-Slit1
36 L Q L F P E L L F L G T A R L Y R L D L S E N Q I Q A I P R K A F R G A V D I K M-Slit1

176 S L Q L D N N Q I T C L D E H A F K G L V E L E I L T L N N N N L T S L P H N I D-Slit
155 N L Q L D Y N Q I S C I E D G A F R A L R D L E V L T L N N N N I T R L S V A S H-Slit1
76 N L Q L D Y N Q I S C I E D G A F R A L R D L E V L T L N N N N I T R L S V A S M-Slit1

216 F G G L G R L R A L R L S D N P F A C D C H L S W L S R F L R S A T R L A P Y T D-Slit
195 F N H M P K L R T F R L H S N N L Y C D C H L A W L S D W L R K R P R V G L Y T H-Slit1
116 F N H M P K L R T F R L H S N N L Y C M-Slit1

256 R C Q S P S Q L K G Q N V A D L H D Q E F K C S G L T E - H A P M - - - E C G A D-Slit
235 Q C M G P S H L R G H N V A E V Q K R E F V C S D E E E G H Q S F M A P S C S V H-Slit1

292 E N S C P H P C R C A D G I V D C R E K S L T S V P V T L P D D T T D V R L E Q D-Slit
275 L H - C P A A C T C S N N I V D C R G K G L T E I P T N L P E T I T E I R L E Q H-Slit1
1 - - - - - S P C T C S N N I V D C R G K G L M E I P A N L P E G I V E I R L E Q H-Slit2

332 N F I T E L P P K S F S S F R R L R R I D L S N N N I S R I A H D A L S G L K Q D-Slit
314 N T I K V I P P G A F S P Y K K L R R I D L S N N Q I S E L A P D A F Q G L R S H-Slit1
36 N S I K A I P A G A F T Q Y K K L K R I D I S K N Q I S D I A P D A F O G L K S H-Slit2

372 L T T L V L Y G N K I K D L P S G V F K G L G S L R L L L L N A N E I S C I R K D-Slit
354 L N S L V L Y G N K I T E L P K S L F E G L F S L Q L L L L N A N K I N C L R V H-Slit1
76 L T S L V L Y G N K I T E I A K G L F D G L V S L Q L L L L H-Slit2

1 R CE-Slit
412 D A F R D L H S L S L L S L Y D N N I Q S L A N G T F D A M K S M K T V H L A K D-Slit
394 D A F Q D L H N L N L L S L Y D N K L Q T I A K G T F S P L R A I O T M H L A O H-Slit1

2 N P X I C D C N L Q W L A Q I N L Q K N I E T S G A R C E Q P K R L R K K K F A CE-Slit
452 N P F I C D C N L R W L A D Y L H K N P I E T S G A R C E S P K R M H R R R I E D-Slit
434 N P F I C D C H L K W L A D Y L H T N P I E T S G A R C T S P R R L A N K R I G H-Slit1

42 T L P P N K F K C K G S E S F V S M Y A D S C F I D S I C P T Q C D C Y G T T V CE-Slit
492 S L R E E K F K C S - W G E L R M K L S G E C R M D S D C P A M C H C E G T T V D-Slit
474 Q I K S K K F R C S G T E D Y R S K L S G D C F A D L A C P E K C R C E G T T V H-Slit1

82 D C N K R G L N T I P T S I P R F A T Q L L L S G N N I S T V D L N S N I H V L CE-Slit
531 D C T G R R L K E I P R D I P L H T T E L L L N D N E L G R I S S D G L F G R L D-Slit
514 D C S N Q K L N K I P E H I P Q Y T A E L R L N N N E F T V L E A T G I F K K L H-Slit1

122 E N L E X L D L S N N H I T F I N D K S F E K L S K L R E L X L N D - - - - - CE-Slit
571 P H L V K L E L K R N Q L T G I E P N A F E G A S H I Q E L Q L G E N K I K E I D-Slit
554 P Q L R K I N F S N N K I T D I E E G A F E G A S G V N E I L L T S N R L E N V H-Slit1
1 - - - - - - - - - - - - - - - E G A F N G A A S V Q E L M L T G N O L E T V H-Slit2

611 S N K M F - - - - - L G L H Q L K T L N D-Slit
594 Q H K M F K G - L E S L K T L M L R S N R I T C V G N D S F I G L S S V R L L S H-Slit1
24 H G R G F R G G L S G L K T L M L R S N L I G C V S N D T F A G L S S V R L L S H-Slit2

626 L Y D N Q I S C V M P G S F E H L N S L T S L N L A S N P F N C N C H L A W - F D-Slit
633 L Y D N Q I T T V A P G A F D T L H S L S T L N L L A N P F N C N C Y L A W - L H-Slit1
64 L Y D N R I T T I T P G A F T T L V S L S T I N L L S N P F N C N C H L G A G L H-Slit2

665 A E C V R K K S L N G G A A R C G A P S K V R D V Q I K D L P H S E F K C S S E D-Slit
672 G E W L R K K R I V T G N P R C Q K P Y F L K E I P I Q D V A I Q D F T C D D G H-Slit1
104 G K W L R K R R I V S G N P R C Q K P F F L K E I P I Q G V G H P G I H-Slit2

1
705 N S E - G C L G D G Y C P P S C T C T G T V V A C S R N Q L K E I P R G I P A E D-Slit
712 N D D N S C S P L S R C P T E C T C L D T V V R C S N K G L K V L P K G I P R D H-Slit1

16 T T E L Y L D A N Y I N E I P A H D L N R L Y S L T K L D L S H N R L I S L E N CE-Slit
744 T S E L Y L E S N E I E Q I H Y E R I R H L R S L T R L D L S N N Q I T I L S N D-Slit
752 V T E L Y L D G N Q F T L V P K E - L S N Y K H L T L I D L S N N R I S T L S N H-Slit1

56 N T F S N L T R L S T L I I S Y N K L R C L Q P L A F N G L N A L R I L S L H G CE-Slit
784 Y T F A N L T K L S T L I I S Y N K L Q C L Q R H A L S G L N N L R V V S L H G D-Slit
791 Q S F S N M T Q L L T L I L S Y N R L R C I P P R T F D G L K S L R L L S L H G H-Slit1

96 NDIS FL PQS AF SNLTSTSI THIAVGSNS LLYC D C N M A W F S K W I CE-Slit
824 N R I S M L P E G S F E D L K S L T H I A L G S N P L Y C D C G L K W F S D W I D-Slit
831 NDIS VV P E G A F N D L S A L S H L A I G A N P L Y C D C N M O W L S D W V H-Slit1

136 K S K F I E A G I A R C E Y P N T V S N Q L L L T A Q P Y Q F T C D S K V P T K CE-Slit
864 K L D Y V E P G I A R C A E P E Q M K D K L I L S T P S S S F V C R G R V R N D D-Slit
871 K S E Y K E P G I A R C A G P G E M A D K L L L T T P S K K F T C O G P V D V N H-Slit1

176 L A T K C D L C L N S P C K N N A I C E T T S S R K Y T C N C T P G F Y G V H C CE-Slit
904 I L A K C N A C F E Q P C Q N Q A Q C V A L P Q R E Y Q C L C Q P G Y H G K H C D-Slit
911 I L A K C N P C L S N P C K N D G T C N S D P V D F Y R C T C P Y G F K G Q D C H-Slit1

216 E N Q I D A C Y G S P C L N N A T C K V - - A Q A G R F N C Y C N K G F E G D Y CE-Slit
944 E F M I D A C Y G N P C R N N A T C T V - - L E E G R F S C Q C A P G Y T G A R D-Slit
951 D V P I H A C I S N P C K H G G T C H L K E G E E D G F W C I C A D G F E G E N H-Slit1

254 C E K N I D D C V N S - K C E N G G K C V D L V R F C S E E L K N F Q S F Q I N CE-Slit
982 C E T N I D D C L G E I K C Q N N A T C I D - - - - - - - - - - G V E D-Slit
991 C E V N V D D C - E D N D C E N N S T C V D - - - - - - - - - - G I N H-Slit1

293 S Y R C D C P M E Y E G K H C E D K L E Y C T K K L N P C E N N G K C I P I N G CE-Slit
1007 S Y K C E C Q P G F S G E F C D T K I Q F C S P E F N P C A N G A K C M D H F T D-Slit
1015 N Y T C L C P P E Y T G E L C E E K L D F C A Q D L N P C Q H D S K C I L T P K H-Slit1
D P L P V M-Slit2

333	S	Y	S	C	M	C	S	P	G	F	T	G	N	N	C	E	T	N	I	D	D	C	K	N	V	E	C	Q	N	G	G	S	C	V	D	G	I	L	S	Y	CE-Slit
1047	H	Y	S	C	D	C	Q	A	G	F	H	G	T	N	C	T	D	N	I	D	D	C	Q	N	H	M	C	Q	N	G	G	T	C	V	D	G	I	N	D	Y	D-Slit
1055	G	F	K	C	D	C	T	P	G	Y	V	G	E	H	C	D	I	D	F	D	D	C	Q	D	N	K	C	K	N	G	A	H	C	T	D	A	V	N	G	Y	H-Slit1
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	N	D	D	C	V	G	H	K	C	R	H	G	A	Q	C	V	D	E	V	N	G	Y	M-Slit1		
1	W	P	R	C	E	C	M	P	G	Y	A	G	D	N	C	S	E	N	Q	D	D	C	R	D	H	R	C	Q	N	G	A	Q	C	M	D	E	V	N	S	Y	H-Slit2
6	H	H	R	C	E	C	M	L	G	Y	T	G	D	N	C	S	E	N	Q	D	D	C	K	D	H	K	C	Q	N	G	A	Q	C	V	D	E	V	N	S	Y	M-Slit2

373	D	C	L	C	R	P	G	Y	A	G	Q	Y	C	E	I	P	P	M	M	D	M	E	Y	Q	K	T	D	A	C	Q	Q	S	A	C	G	Q	G	-	E	C	CE-Slit
1087	Q	C	R	C	P	D	D	Y	T	G	K	Y	C	E	G	H	N	M	I	S	M	M	Y	P	Q	T	S	P	C	Q	N	H	E	C	K	H	G	V	-	C	D-Slit
1095	T	C	I	C	P	E	G	Y	S	G	L	F	C	E	F	S	P	-	-	P	M	V	L	P	R	T	S	P	C	D	N	F	D	C	Q	N	G	A	Q	C	H-Slit1
24	T	C	I	C	P	Q	G	F	S	G	L	F	C	E	H	P	P	-	-	P	M	V	L	L	Q	T	S	P	C	D	Q	Y	E	C	Q	N	G	A	Q	C	M-Slit1
41	S	C	L	C	A	E	G	Y	S	G	Q	L	C	E	I	P	P	-	-	H	L	P	A	P	K	-	S	P	C	E	G	T	E	C	Q	N	G	A	N	C	H-Slit2
46	A	C	L	C	V	E	G	Y	S	G	Q	L	C	E	I	P	P	-	-	-	-	-	A	P	R	-	S	S	C	E	G	T	E	C	Q	N	G	A	N	C	M-Slit2

412 V A S Q N - S S D F T C K C H E G F S G P S C D R Q M S V G F K N P G A Y L A L CE-Slit
1126 F Q P N A Q G S D Y L C R C H P G Y T G K W C E Y L T S I S F V H N N S F V E L D-Slit
1133 I V R I N E P - - - I C Q C L P G Y Q G E K C E K L V S V N F I N K E S Y L Q I H-Slit1
62 I V V Q Q E P - - - T C R C P P G F A G P R C E K L I T V N F V G K D S Y V E L M-Slit1
78 V D Q G N R P - - - V C Q C L P G F G G P E C E K L L S V N F V D R D T Y L Q F H-Slit2
80 V D Q G S R P - - - V C Q C L P G F G G P E C E K L L S V N F V D R D T Y L Q F M-Slit2

451	D	P	L	A	S	-	-	D	G	T	I	T	M	T	L	R	T	T	S	K	I	G	I	L	L	Y	Y	G	D	D	H	F	V	S	A	E	L	Y	D	G	CE-Slit
1166	E	P	L	R	T	R	P	E	A	N	V	T	I	V	F	S	S	A	E	Q	N	G	I	L	M	Y	D	G	Q	D	A	H	L	A	V	E	L	F	N	G	D-Slit
1170	P	S	A	K	V	R	P	Q	T	N	I	T	L	Q	I	A	T	D	E	D	S	G	I	L	L	Y	K	G	D	K	D	H	I	A	V	E	L	Y	R	G	H-Slit1
99	A	S	A	K	V	R																																M-Slit1			
115	T	D	L	Q	N	W	X	R	X	N	I	T	L	Q	V	F	T	A	E	D	N	G	I	L	L	Y	N	G	G	N	D	H	I	A	V	X	L	Y	X	G	H-Slit2
117	T	D	L	Q	N	W	P	R	A	N	I	T	L	Q	V	S	T	A	E	D	N	G	I	L	L	Y	N	G	D	N	D	H	I	A	V	E	L	Y		M-Slit2	

489 R V K L V Y Y I G N F P A S H M Y S S V K V N D G L P H R I S I R T S E R K C F CE-Slit
1206 R I R V S Y D V G N H P V S T M Y S F E M V A D G K Y H A V E L L A I K K N F T D-Slit
1210 R V R A S Y D T G S H P A S A I Y S V E T I N D G N F H I V E L L A L D Q S L S H-Slit1
155 H V R F S Y H-Slit2

[illegible]

0996600 = 080701

Table 2.

Alignment of human Slit-1 (SEQ ID NO:02) and Drosophila Slit-1 (SEQ ID NO:07)

1	M	A	A	P	S	R	T	T	L	M	P	P	P	F	R	L	Q	L	R	L	-	L	I	L	P	I	L	L	L	R	H	D	A	V	H	A	E	P	Y	D-Slit	
1	M	R	G	V	G	W	Q	-	-	-	-	-	-	-	M	L	S	L	S	L	G	L	V	L	A	I	L	-	-	-	-	-	-	-	-	-	-	-	-	-	H-Slit1
40	S	G	G	F	G	S	S	A	V	S	S	G	G	L	G	S	V	G	I	H	I	P	G	G	G	V	G	V	I	T	E	A	R	C	P	R	V	C	S	C	D-Slit
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	K	V	A	P	Q	A	C	P	A	Q	C	S	C	H-Slit1	
80	T	G	L	N	V	D	C	S	H	R	G	L	T	S	V	P	R	K	I	S	A	D	V	E	R	L	E	L	Q	G	N	N	L	T	V	I	Y	E	T	D	D-Slit
35	S	G	S	T	V	D	C	H	G	L	A	L	R	S	V	P	R	N	I	P	R	N	T	E	R	L	D	L	N	G	N	N	I	T	R	I	T	K	T	D	H-Slit1
120	F	Q	R	L	T	K	L	R	M	L	Q	L	T	D	N	Q	I	H	T	I	E	R	N	S	F	Q	D	L	V	S	L	E	R	L	-	-	-	-	-	D-Slit	
75	F	A	G	L	R	H	L	R	V	L	Q	L	M	E	N	K	I	S	T	I	E	R	G	A	F	Q	D	L	K	E	L	E	R	L	R	L	N	R	N	H	H-Slit1
154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	I	S	N	N	V	I	T	T	V	G	R	R	V	F	K	G	A	Q	S	L	R	D-Slit	
115	L	Q	L	F	P	E	L	L	F	L	G	T	A	K	L	Y	R	L	D	L	S	E	N	Q	I	Q	A	I	P	R	K	A	F	R	G	A	V	D	I	K	H-Slit1
176	S	L	Q	L	D	N	N	Q	I	T	C	L	D	E	H	A	F	K	G	L	V	E	L	E	I	L	T	L	N	N	N	N	L	T	S	L	P	H	N	I	D-Slit
155	N	L	Q	L	D	Y	N	Q	I	S	C	I	E	D	G	A	F	R	A	L	R	D	L	E	V	L	T	L	N	N	N	N	I	T	R	L	S	V	A	S	H-Slit1
216	F	G	G	L	G	R	L	R	A	L	R	L	S	D	N	P	F	A	C	D	C	H	L	S	W	L	S	R	F	L	R	S	A	T	R	L	A	P	Y	T	D-Slit
195	F	N	H	M	P	K	L	R	T	F	R	L	H	S	N	N	L	Y	C	D	C	H	L	A	W	L	S	D	W	L	R	K	R	P	R	V	G	L	Y	T	H-Slit1
256	R	C	Q	S	P	S	Q	L	K	G	Q	N	V	A	D	L	H	D	Q	E	F	K	C	S	G	L	T	E	-	H	A	P	M	-	-	-	E	C	G	A	D-Slit
235	Q	C	M	G	P	S	H	L	R	G	H	N	V	A	E	V	Q	K	R	E	F	V	C	S	D	E	E	E	G	H	Q	S	F	M	A	P	S	C	S	V	H-Slit1
292	E	N	S	C	P	H	P	C	R	C	A	D	G	I	V	D	C	R	E	K	S	L	T	S	V	P	V	T	L	P	D	D	T	T	D	V	R	L	E	Q	D-Slit
275	L	H	-	C	P	A	A	C	T	C	S	N	N	I	V	D	C	R	G	K	G	L	T	E	I	P	T	N	L	P	E	T	I	T	E	I	R	L	E	Q	H-Slit1
332	N	F	I	T	E	L	P	P	K	S	F	S	S	F	R	R	L	R	R	I	D	L	S	N	N	N	I	S	R	I	A	H	D	A	L	S	G	L	K	Q	D-Slit
314	N	T	I	K	V	I	P	P	G	A	F	S	P	Y	K	K	L	R	R	I	D	L	S	N	N	Q	I	S	E	L	A	P	D	A	F	Q	G	L	R	S	H-Slit1
372	L	T	T	L	V	L	Y	G	N	K	I	K	D	L	P	S	G	V	F	K	G	L	G	S	L	R	L	L	L	N	A	N	E	I	S	C	I	R	K	D-Slit	
354	L	N	S	L	V	L	Y	G	N	K	I	T	E	L	P	K	S	L	F	E	G	L	F	S	L	Q	L	L	L	L	N	A	N	K	I	N	C	L	R	V	H-Slit1
412	D	A	F	R	D	L	H	S	L	S	L	L	S	L	Y	D	N	N	I	Q	S	L	A	N	G	T	F	D	A	M	K	S	M	K	T	V	H	L	A	K	D-Slit
394	D	A	F	Q	D	L	H	N	L	N	L	L	S	L	Y	D	N	K	L	Q	T	I	A	K	G	T	F	S	P	L	R	A	I	Q	T	M	H	L	A	Q	H-Slit1
452	N	P	F	I	C	D	C	N	L	R	W	L	A	D	Y	L	H	K	N	P	I	E	T	S	G	A	R	C	E	S	P	K	R	M	H	R	R	R	I	E	D-Slit
434	N	P	F	I	C	D	C	H	L	K	W	L	A	D	Y	L	H	T	N	P	I	E	T	S	G	A	R	C	T	S	P	R	R	L	A	N	K	R	I	G	H-Slit1
492	S	L	R	E	E	K	F	K	C	S	-	W	G	E	L	R	M	K	L	S	G	E	C	R	M	D	S	D	C	P	A	M	C	H	C	E	G	T	T	V	D-Slit
474	Q	I	K	S	K	K	F	R	C	S	G	T	E	D	Y	R	S	K	L	S	G	D	C	F	A	D	L	A	C	P	E	K	C	R	C	E	G	T	T	V	H-Slit1
531	D	C	T	G	R	R	L	K	E	I	P	R	D	I	P	L	H	T	T	E	L	L	N	D	N	E	L	G	R	I	S	S	D	G	L	F	G	R	L	D-Slit	
514	D	C	S	N	Q	K	L	N	K	I	P	E	H	I	P	Q	Y	T	A	E	L	R	L	N	N	N	E	F	T	V	L	E	A	T	G	I	F	K	K	L	H-Slit1

1183 A[E]Q N[G I L]M[Y]D[G]Q D A[H]L[A V E L]F N[G R I]R V[S Y D]V[G]N[H P]V[S]T M[Y] D-Slit
1187 D[E]D S[G I L]L[Y]K[G]D K D[H]I[A V E L]Y R[G R V]R A[S Y D]T[G]S[H P]A[S]A I[Y] H-Slit1

1223 [S]F[E]M V A[D G]K Y[H]A[V E L L A]I K K N F T[L]R[V D R G]L A R S[I]I[N]E G S N D-Slit
1227 [S]V[E]T I N[D G]N F[H]I[V E L L A]L D Q S L S[L]S[V D]G[G]N P K I[I]T[N]L S K Q H-Slit1

1263 D Y[L]K L T T[P]M F L[G G]L[P]V D P A Q Q A Y K N W Q I R[N]L[T S F]K[G C]M K E D-Slit
1267 S T[L]N F D S[P]L Y V[G G]M[P]G K S N V A S L R Q A P G Q[N]G[T S F]H[G C]I R N H-Slit1

1303 V W[I N]H K[L]V[D F]G N A Q R[Q]Q K[I]T P G C A L - - - - L E G E Q Q E E E D D D-Slit
1307 L Y[I N]S E[L]Q[D F]Q K V P M[Q]T G[I]L P G C E P C H K K V C A H G T C Q P S S H-Slit1

1339 E Q D[F]M D[E] - - - - - T[P]H I K E E P V[D P C L]E[N K C]R R[G]S R[C]V[P]N S D-Slit
1347 Q A G[F]T C[E]C Q E G W M G[P]L C D Q R T N[D P C L]G[N K C]V H[G]T -[C]L[P]I N H-Slit1

1373 N A R D G[Y]Q[C K C]K H[G]Q R[G]R Y[C D]Q G[E]G S T E P - - - - - D-Slit
1386 A F - - S[Y]S[C K C]L E[G]H G[G]V L[C D]E E[E]D L F N[P]C Q A I K C K H G K C R H-Slit1

1401 - - - - - P T V[T A A]S - - - - - T[C R K]E Q V[R E Y Y]T E N D - D-Slit
1424 L S G L G Q P Y C E C S S G Y[T G D]S C D R E I S[C R G]E R I R D Y Y Q K Q Q G H-Slit1

1423 - - -[C]R S R Q P L K Y A K[C]V[G G C] -[G]N[Q C C]A A K I V R[R R K]V R M V[C]S D-Slit
1464 Y A A[C]Q T T K K V S R L E[C]R[G G C]A[G]G[Q C C]G P L R S K[R R K]Y S F E[C]T H-Slit1

1459 N N R K Y I K N L D I[V]R[K C G C T]K K[C]Y D-Slit
1504 D G S S F V D E V E K[V]V[K C G C T]R -[C]V S H-Slit1

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